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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/308,770	10/28/99	SCHWERTFEGER	F 3259.81131

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IM62/0215

EXAMINER

CROCKFORD, K

ART UNIT

PAPER NUMBER

1762

DATE MAILED:

02/15/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/308,770

Applicant(s)
Schwertfeger

Examiner
Kirsten Crockford

Group Art Unit
1762



- ☐ Responsive to communication(s) filed on _____
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

- ☒ Claim(s) 1-19 is/are pending in the application.
- Of the above, claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-6 is/are rejected.
- ☒ Claim(s) 7-19 is/are objected to.
- ☐ Claims _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☒ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been
- ☐ received.
- ☐ received in Application No. (Series Code/Serial Number) _____.
- ☒ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

- ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- ☒ Notice of References Cited, PTO-892
- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Claim Objections

1. Claims 7-19 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from another multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 5 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5, line 3, contains a parenthetical phrase. Parenthetical phrases are improper in U.S. practice.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Schwertfeger et al. in view of Smith.

Schwertfeger et al. discloses a process for preparing modified aerogels which includes the steps of: introducing a silicate-type lyogel into a reactor; washing the lyogel with an organic solvent (column 3, lines 32-44); surface silylating the gel (column 3, line 57 to column 4, line 7); and drying the gel (column 4, lines 54-62). Schwertfeger et al. merely lacks the disclosure of using a disiloxane of claimed formula (I) as the silylating agent.

Smith discloses the use of disiloxanes as silylating agents in its invention, specifically the use of hexamethyldisiloxane, 1,1,3-divinyltetramethyldisiloxane, and 1,3-diphenyldisiloxane -- each of which meet the Applicant's limitation for the disiloxane in claim 1. In the absence of a showing of unexpected results, it would have been obvious for one of ordinary skill in the art to have substituted the silylating agent of Smith (for example, hexamethyldisiloxane) for the silylating agent of Schwertfeger et al. with the expectation of similar results.

Schwertfeger et al. teaches in column 3, lines 1-30, that the silicate lyogel is preferably made by either of the two methods claimed in claims 3 or 4. As to claim 6, Schwertfeger et al. teaches that IR opacifiers, or IR turbidity-promoting agents, may be added prior to preparation of the gel (column 5, lines 1-4).

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6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schwertfeger et al. in view of Smith as applied to claims 1-4 and 6 above, and further in view of Jansen et al.

Schwertfeger et al. does not disclose that its silicate-type lyogel can be prepared by obtaining it from an aqueous water glass solution with the aid of at least one organic and/or inorganic acid via the intermediate stage of a silicic acid sol. Jansen et al. teaches that silicate aerogels can be formed by the mentioned method (column 1, lines 45-67). It would have been obvious to have substituted the silicate-type lyogel of Jansen et al. for the silicate-type lyogel of Schwertfeger et al. with the expectation of similar results and in the absence of a showing of criticality.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kirsten Crockford whose telephone number is (703) 306-5461. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck, can be reached at (703) 308-2333. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3599.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

kac

February 13, 2000


Shrive Beck
Supervisory Patent Examiner
Technology Center 1700